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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/538,645

06/10/2005

Neil Edmunds

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EXAMINER

LE, THI Q

ART UNIT

PAPER NUMBER

2613

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/538,645	<b>Applicant(s)</b> EDMUNDS ET AL.	
	<b>Examiner</b> THI Q. LE	<b>Art Unit</b> 2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 9-19 is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/09/2007</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Priority*

1. Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged.

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. **Claims 1-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Onaka et al.** (US Patent # 5,894,362) in view of **Sato et al.** (US PGPub 2002/0126339).

Regarding **claim 1**, Onaka discloses, a network tap module having a network line monitoring function, the module comprising: a signal splitter constructed and arranged to split a signal, which is received from a network to which in use the tap module is connected, into a first copy which is returned to the network and a second copy (figure 16 shows, optical coupler 54 is configured to split received optical signal from fiber 16 into two optical signals; column 16 lines 1-30); a line monitoring and statistics circuit constructed and arranged to receive the second copy of the signal from the signal splitter and to carry out line monitoring and statistics collecting thereon (figure 16 shows, optical spectrum monitor 34 is configured to received a split optical signal from coupler 54 for analyzing; column 16 lines 1-30). Onaka fails to disclose, at least one of: (i) a display for displaying an indication of the state of the network line based on the line monitoring and statistics collection carried out by the line monitoring and statistics circuit, and (ii) an interface for allowing data relating to the state of the network line based on the line monitoring and statistics collection carried out by the line monitoring and statistics circuit to be output from the module.

In related art, Sato discloses an optical communication monitor. Wherein the optical communication monitor includes at least one of: (i) a display for displaying an indication of the state of the network line based on the line monitoring and statistics collection carried out by the line monitoring and statistics circuit (figure 16 shows, a display unit 214A, that is configured for displaying the measurement result from signal processing circuit 251A; paragraphs 0106-0110), and (ii) an interface for allowing data relating to the state of the network line based on the line

monitoring and statistics collection carried out by the line monitoring and statistics circuit to be output from the module (figure 9 shows, a data output unit 223, that is configure to output measurement result from signal processing circuit 251; paragraph 0085).

It would have been obvious for a person of ordinary skill in the art at the time of the invention to incorporate the teachings of Sato with Onaka. Since providing a display unit and a data output unit for displaying and outputting measurement data from the monitoring unit would keep the system's operator better informed of the network's statistic; thus improving system's maintenance.

Regarding **claim 2**, Onaka modified by Sato further disclose, both a display for displaying an indication of the state of the network line based on the line monitoring and statistics collection carried out by the line monitoring and statistics circuit, and an interface for allowing data relating to the state of the network line based on the line monitoring and statistics collection carded out by the line monitoring and statistics circuit to be output from the module (Sato shows in figure 16, a display unit 214A, that is configured for displaying the measurement result from signal processing circuit 251A; paragraphs 0106-0110. figure 9 shows, a data output unit 223, that is configure to output measurement result from signal processing circuit 251; paragraph 0085).

Regarding **claim 3**, Onaka modified by Sato further disclose, a retimer circuit constructed and arranged to receive and regenerate the first copy of said signal prior to that copy being passed back into a said network (Onaka shows in figure 16, regenerative repeater unit 60, which is configured to receive an optical signal from branching device 58 and performing regeneration

of the optical signal before inserting the optical signal back into the network stream; column 16 lines 1-30).

Regarding **claim 4**, Onaka modified by Sato further disclose, an output line on which a third copy of said signal is in use output (Sato shows in figure 16, the optical communication monitor 211A can splits the received optical signal into three copies, wherein one of the copy is output to an optical output unit 222; paragraph 0109-0110).

Regarding **claim 5**, Onaka discloses, a network tap module having a network line monitoring function, the module comprising: an optical signal splitter constructed and arranged to split an optical signal, which is received from an optical network to which in use the tap module is connected, such that a first copy of the signal continues along the optical network without retiming and to provide a second copy of the optical signal (figure 16 shows, optical coupler 54 is configured to split received optical signal from fiber 16 into two optical signals; column 16 lines 1-30); a line monitoring and statistics circuit constructed and arranged to receive the second copy of the signal from the signal splitter and to carry out line monitoring and statistics collecting thereon (figure 16 shows, optical spectrum monitor 34 is configured to received a split optical signal from coupler 54 for analyzing; column 16 lines 1-30). Onaka fails to disclose, at least one of: (i) a display for displaying an indication of the state of the network line based on the line monitoring and statistics collection carried out by the line monitoring and statistics circuit, and (ii) an interface for allowing data relating to the state of the network line based on the line monitoring and statistics collection carried out by the line monitoring and statistics circuit to be output from the module.

In related art, Sato discloses an optical communication monitor. Wherein the optical communication monitor includes at least one of: (i) a display for displaying an indication of the state of the network line based on the line monitoring and statistics collection carried out by the line monitoring and statistics circuit (figure 16 shows, a display unit 214A, that is configured for displaying the measurement result from signal processing circuit 251A; paragraphs 0106-0110), and (ii) an interface for allowing data relating to the state of the network line based on the line monitoring and statistics collection carried out by the line monitoring and statistics circuit to be output from the module (figure 9 shows, a data output unit 223, that is configured to output measurement result from signal processing circuit 251; paragraph 0085).

It would have been obvious for a person of ordinary skill in the art at the time of the invention to incorporate the teachings of Sato with Onaka. Since providing a display unit and a data output unit for displaying and outputting measurement data from the monitoring unit would keep the system's operator better informed of the network's statistic; thus improving system's maintenance.

Regarding **claim 6**, is rejected for the same reason as claim 2 above.

Regarding **claim 7**, Onaka modified by Sato further disclose, an optical receiver constructed and arranged to receive the second copy of the signal from the signal splitter and to convert the received copy from optical to electrical format prior to passing it to the line monitoring and statistics circuit (figure 16 shows, optical signal is first converted into electrical signal via photodetector array 10 before it is pass into signal processing circuit 14 for extracting measurement data; column 14 lines 30-50).

Regarding **claim 8**, is rejected for the same reason as claim 4 above.

*Allowable Subject Matter*

5. Claims **9-19** are allowed.

6. The following is a statement of reasons for the indication of allowable subject matter:

In claim 9, the prior art disclosed, at least one of: (i) a display for displaying an indication of the state of said network serial lines based on the line monitoring and statistics collection carried out by the line monitoring and statistics circuit, and (ii) an interface for allowing data relating to the state of said network serial lines based on the line monitoring and statistics collection carried out by the line monitoring and statistics circuit to be output from the module. But the prior art failed to disclose, a first connector for connecting the module to a first network serial line so that a signal can be received at the first connector from a said first network serial line; a second connector for connecting the module to a second network serial line so that a signal can be received at the second connector from a said second network serial line; a first signal splitter constructed and arranged to receive a signal from a said first network serial line via the first connector and to produce at least two substantially identical copies of said signal; a second signal splitter constructed and arranged to receive a signal from a said second network serial line via the second connector and to produce at least two substantially identical copies of said signal; a first retimer circuit constructed and arranged to receive a first of said copies of said signal from the first signal splitter and to regenerate said signal for passing back into a said first network serial line; a second retimer circuit constructed and arranged to receive a first of said copies of said signal from the second signal splitter and to regenerate said signal for passing back into a said second network serial line; a line monitoring and statistics circuit constructed and



arranged to receive a second of said copies of said signal from the first signal splitter and to carry out line monitoring and statistics collecting thereon, and to receive a second of said copies of said signal from the second signal splitter and to carry out line monitoring and statistics collecting thereon. Therefore claim is allowable over the prior art.

***Conclusion***

7. Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Hand-delivered responses** should be brought to

Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

8. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Thi Le whose telephone number is (571) 270-1104. The Examiner can normally be reached on Monday-Friday from 7:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Kenneth Vanderpuye can be reached on (571) 272-3078. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

*/Thi Q Le/  
Examiner, Art Unit 2613*

*/Kenneth N Vanderpuye/  
Supervisory Patent Examiner, Art Unit 2613*